Specification

The specification is amended herein to include the priority claim and to include the heading "Brief Description of the Drawings." In addition, the specification is appropriately amended to refer to each panel of the drawings, and to refer to appropriate sequence identifiers. Applicants submit that these amendments remove the objections to the specification.

Sequence Rules Compliance

The specification is objected to for not properly identifying sequences by sequence identifier in the description of Figures 1, 5, and 6. Applicants have amended the descriptions of Figures 1, 5, and 6 to refer to appropriate sequence identifiers, thereby removing the rejection.

Claim Objection

Claims 55-56 were rejected as allegedly being dependent on non-elected claim 12. Applicants submit that, as discussed above, and in the Office action dated January 3, 2001, submission of the Declaration Under 37 C.F.R § 1.132 has re-joined the claims of Groups I, II, and IV, and all of these claims are now currently pending. However, the claims have been amended to no longer depend from claim 12, rendering the rejection moot.

Claims 57-63 were objected to for the use of the term "SEQ I.D. NO." Claims 57-63 are amended herein to recite "SEQ ID NO:" thereby removing the rejection.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 55-56 and 65 are rejected as allegedly the specification is not enabling for the claimed nucleic acids encoding A1B1 polypeptide. Applicants respectfully disagree with the rejection.

The specification provides definitive functional features of this genus of AIB1 polypeptides. For example, the specification clearly discloses the estrogen receptor binding domain of AIB1 (see the specification on page 7, lines 10-28), and that transfection of AIB1 into a cell results in marked enhancement of estrogen dependent transcription (see the specification at page 6, lines 19-20) and and the interaction of AIB1 with the estrogen receptor. Moreover, the specification discloses two polypeptides of this genus, namely SEQ ID NO:4 and SEQ ID NO:8. Conservative variants are disclosed (see the specification on page 20, line 34 to page 21, line 34). A functional assay for an AIB1 function is disclosed in the specification on page 18, line 33. However, solely for economic

reasons, to advance prosecution of the subject application, claim 55 has been amended to recite AIB polypeptides comprising SEQ ID NO:8, and conservative variants thereof. In addition, claim 55 has been amend to recite that the encoded polypeptide has a particular function characteristic of AIB1, namely that it enhances estrogen dependent transcription or interacts with the estrogen receptor. Thus, structural and functional features of the claimed genus have been recited in the claims. Applicants submit that these claim amendments remove the rejection.

Claims 55-56, and 65 were rejected as allegedly there is insufficient written description for the claimed nucleic acids. Applicants respectfully disagree. A description of the polynucleotides of the invention is provided on page 6, line 31 to page 8, line 21. The polypeptide sequence of a full length AIB1 polynucleotide (SEQ ID NO:1) is provided, and variants and substitutions are described (see the specification at page 7, line 29 to page 8, line 21). Moreover, a sequence of a full-length AIB1 polypeptide (SEQ ID NO:8) is provided, as well as a functional fragment of AIB1 (SEQ ID NO:4). One of skill in the art could readily determine all possible polynucleotide sequences that could encode these polypeptides. Thus, Applicants submit that sufficient written description is provided for the AIB1 polynucleotide sequences. However, as noted above, and solely for economic reasons, the claims have now been amended to recite polynucleotides encoding AIB polypeptides comprising SEQ ID NO:8, and conservative variants thereof, wherein the encoded polypeptide enhances estrogen dependent transcription or interacts with the estrogen receptor. Thus, structural and functional features of the claimed genus have been recited in the claims.

The Office action states that "the claims do not provide written description of cells comprising said non-native polynucleotides" (emphasis added). Applicants respectfully request further clarification. Transfection of host cells is described in the specification on page 6, lines 21-30. COS-1 cells transfected with nucleic acids encoding AIB1 proteins are described on page 18, lines 3-17, and yeast cells transfected with nucleic acids encoding AIB1 proteins are described in the specification on page 19, lines 1-10. Thus, cells comprising nucleic acids encoding AIB1 polypeptides are fully described in the specification. However, in the interest of advancing the prosecution of the application, claim 65 has been amended to recite that the cell is a "host" cell.

Reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, first paragraph, are respectfully requested.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 55-65 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite in the recitation of "AIB1." Applicants respectfully disagree with the rejection. However, solely in order to advance prosecution, the claims have now been amended to refer to appropriate sequence identifiers, thereby removing the rejection.

Rejection Under 35 U.S.C. § 102

Claims 55-56, 61, and 64-65 were rejected as allegedly being anticipated by Guan et al. (Cancer Research 56:3446-3450, 1996). Submitted herewith is a declaration under 37 C.F.R. § 1.132, documenting that Guan et al. is the inventor's own work, published less than one year prior to the filing of the subject application. In view of the declaration, reconsideration and withdrawal of the rejection is respectfully requested.

Claims 55-56, 61, and 64-65 were rejected as allegedly being anticipated by Torchia et al. Applicants respectfully disagree with this rejection. Torchia et al. disclose pCIP, a SRC family co-activator found in mice. Torchia et al. do not disclose an AIB1 polypeptide including a sequence encoding SEQ ID NO:8, or a conservative variant thereof. Thus Torchia et al. do not suggest, nor render obvious claims 55-56, 61, or 64-65. Reconsideration and withdrawal of the rejection is respectfully requested.

The signed Declaration of Paul Meltzer and Jeffry Trent under 37 C.F.R. § 1.132, enclosed herewith, describes a publication, (Guan et al., Cancer Research 56:3446-3450) that represents the work of the Applicants. The Guan et al. reference was published August 1, 1996. Applicants submit that the Guan et al. reference, and the Declaration Of Paul Meltzer and Jeffry Trent under 37 C.F.R. § 1.132 enclosed herewith, document invention of the claimed invention by August 1, 1996, which is prior to the June 12, 1997 publication date of Torchia et al. Thus, Applicants submit that in the unlikely event that a rejection is maintained over Torchia et al., this publication is not available as a reference under 35 U.S.C. §102(a) because it does not evidence prior invention by another.

CONCLUSION

Applicants submit that the claims are now in condition for allowance. If any minor matters remain to be discussed, the Examiner is invited to call the undersigned at the telephone number listed below.

Respectfully submitted,

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